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TITLE: Thin film igniter for pyrotechnic material
especially of
airbag

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ABSTRACT:

CHG DATE=19990905 STATUS=C>A thin film igniter element for pyrotechnic active materials consists of a substrate (4) bearing two electric contacts (1) connected together by a chemically and thermally active fuse bridge layer (2) which consists of a hydrided hafnium and/or titanium layer and which is preferably initiated by a plasma discharge. Preferably, the fuse bridge layer (2) consists of hafnium-free TiH_x ($x = 0.5$ to 2.0), titanium-free HfH_x ($x = 0.025$ to 2.0) or a hydrided hafnium-titanium mixture. Also claimed is

production of the above thin film igniter element by (a) depositing and structuring a hafnium and/or titanium layer in accordance with the geometry of the fuse bridge layer (2) and the contacts (1); and (b) hydriding the layer preferably at about 350 deg C.